



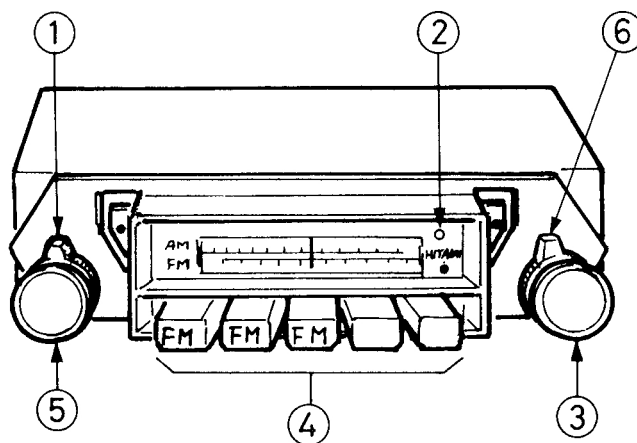
HITACHI

KMS-2521Z

SERVICE MANUAL

No.1125

Car Model	DATSUN 280ZX (S130)
Front Speaker	B-3001ZFx1
Rear Speaker	B-2511Zx2
Motor Antenna	RO-89E
Antenna Feeder	RO-87F
Antenna Cap	RO-89(B)
Antenna Nut	RO-89(N)



KEY TO ILLUSTRATIONS

- | | |
|-------------------|-------------------------------|
| 1 TONE CONTROL | 4 TUNING SELECTOR |
| 2 ANTENNA TRIMMER | 5 POWER SWITCH/VOLUME CONTROL |
| 3 TUNING CONTROL | 6 BALANCE CONTROL |

SPECIFICATIONS

TUNER SECTION

Circuit System: AM/FM MPX 2 band superheterodyne
Tuning Range: FM: 88 ~ 108 MHz
AM: 530 ~ 1605 kHz
Intermediate Frequency: FM: 10.7 MHz
AM: 455 kHz
Sensitivity: FM: 0 dB (max.), 12 dB (pra.)
AM: 15 dB (max.), 28 dB (pra.)
Antenna: Car antenna

GENERAL

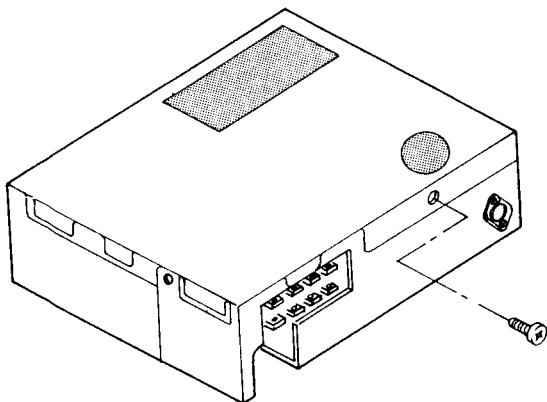
Semiconductors: 11 IC's, 1FET, 9 diodes
Power Supply: 12V (Car battery), Negative ground
Current Consumption: 100 mA (with no signal)
Output: 8W/CH (Max., 2 Ω Load)
6W/CH (T.H.D. 10%, 2 Ω Load)
Dimensions: 5.0cm(H)x16.0cm(W)x13.0cm(D)
Weight: 1.2kg

AM/FM 2 BAND CAR RADIO with FM STEREO

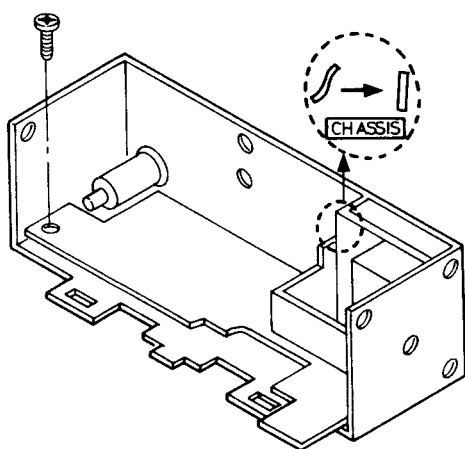
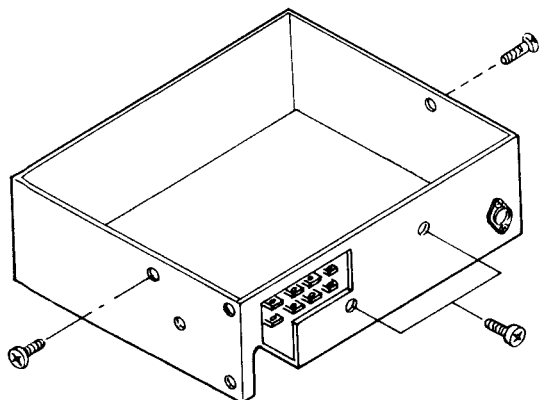
Oct. 1978

DISASSEMBLY

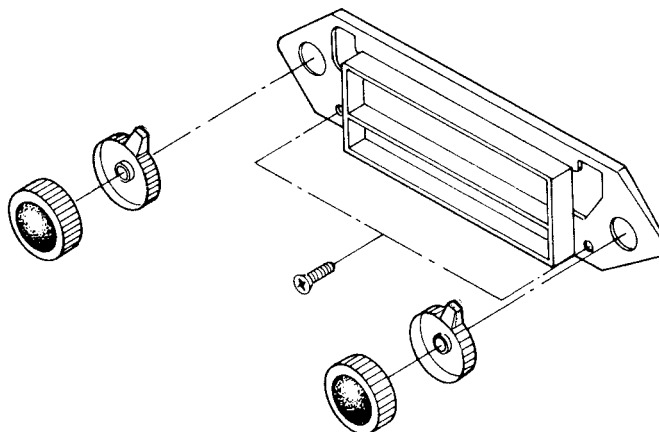
1. Removal of Upper Cover



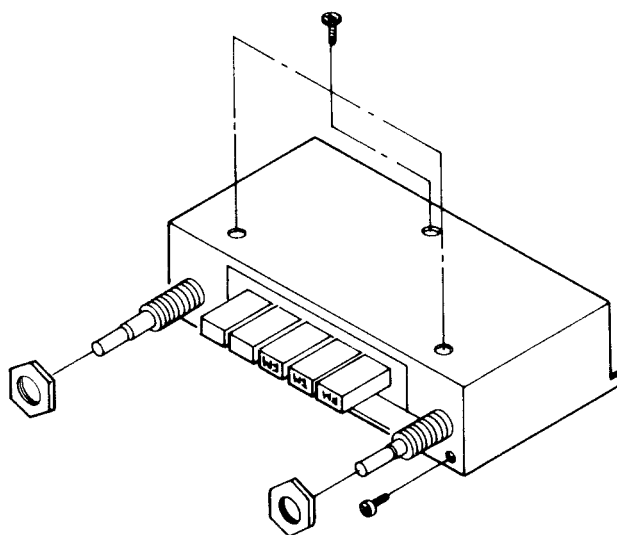
2. Removal of Rear Case



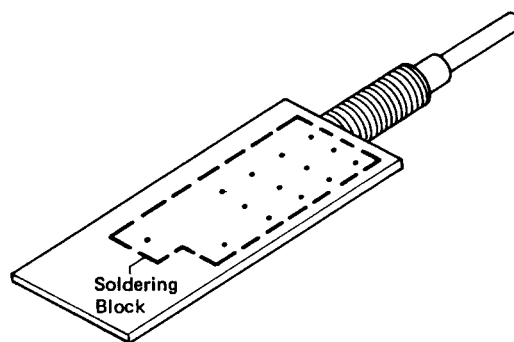
3. Removal of Nose Escutcheon



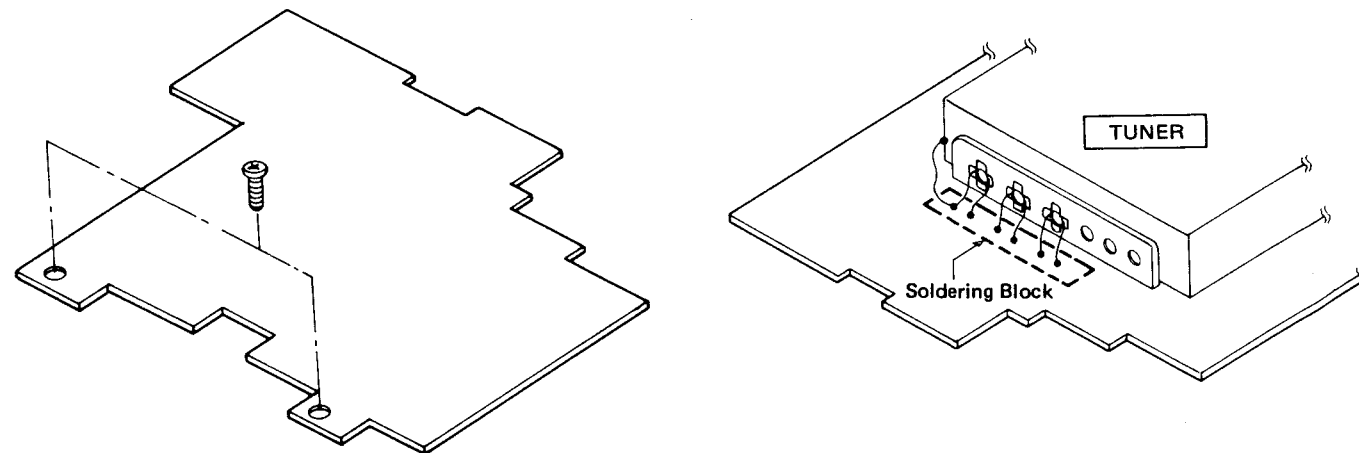
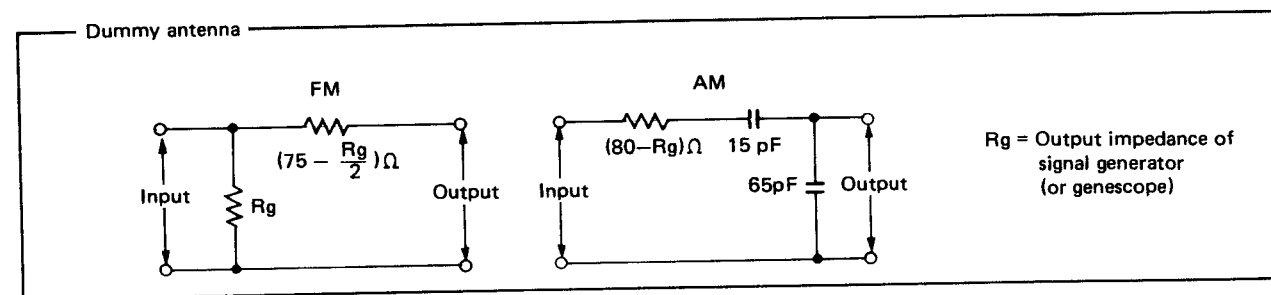
4. Removal of Front Case



5. Removal of Volume P.C.B.



6. Removal of Radio P.C.B.

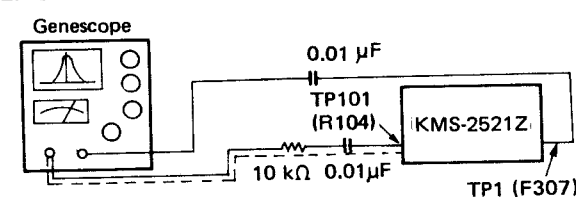
ADJUSTMENT
Tuner

FM IF & Discri. adjustment

1. Setting

Symbol No.	Controls	Position
RT201	FM sensitivity adjustment	Middle
RV401A, B	Tone control	High
RV402A, B	Volume control	Minimum
RV503A, B	Balance control	Center

2. Connection



3. Adjustment

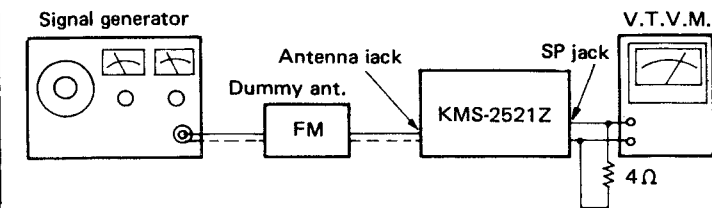
Item	Genescope	Dial pointer position	Adjust	Reading	Remarks
1	10.7 MHz	Highest	T202	—	Turn the T202 fully counterclockwise.
2			T101 T201	Max.	Reduce the level of the genescope so that the waveform will be one.
3			T202		Adjust the T202 so that the output is like the S curve for symmetrical sinewave.

FM RF (Covering & Tracking) adjustment

1. Setting

Symbol No.	Controls	Position
RT201	FM sensitivity adjustment	Middle
RV401A, B	Tone control	High
RV402A, B	Volume control	Maximum
RV503A, B	Balance control	Center

2. Connection



3. Adjustment

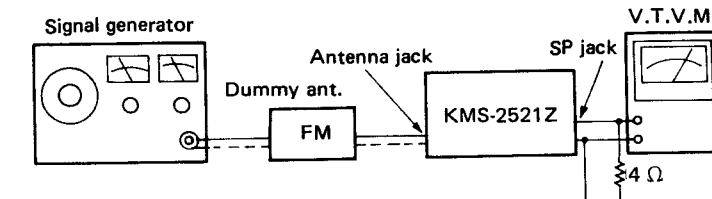
Item		Signal generator		Dial pointer position	Adjust	Reading	Remarks
		Frequency	Modulation				
1	Covering	87 MHz	400Hz 30%	Lowest	CT103	Max.	—
2	Tracking	98 MHz		98 MHz	CT101, CT102		

FM sensitivity adjustment

1. Setting

Symbol No.	Controls	Position
RV401A, B	Tone control	High
RV402A, B	Volume control	Maximum
RV503A, B	Balance control	Center

2. Connection



3. Adjustment

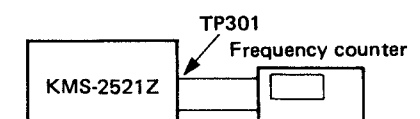
Item	Signal generator		Dial pointer position	Adjust	Reading	Remarks
	Frequency	Modulation				
1	98 MHz	400 Hz, 30% 74 dB	98 MHz	RV402 A, B	1.41V	
2		400 Hz, 30% 10 dB		RT 201	1.41V - 3 dB	

FM MPX (Multiplex) adjustment

1. Setting

Symbol No.	Control	Position
RV401A, B	Tone control	—
RV402A, B	Volume control	—
RV503A, B	Balance control	—

2. Connection



3. Adjustment

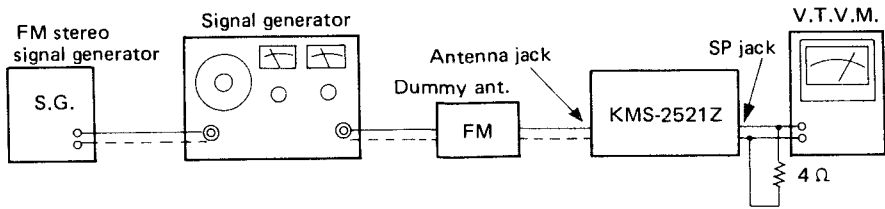
Adjust	Reading	Remarks
RT302	19 kHz + 100 Hz	—

FM Separation adjustment

1. Setting

Symbol No.	Controls	Position	Symbol No.	Controls	Position
RV401A, B	Tone control	—	RV402A, B	Volume control	—
			RV503A, B	Balance control	Center

2. Connection



3. Adjustment

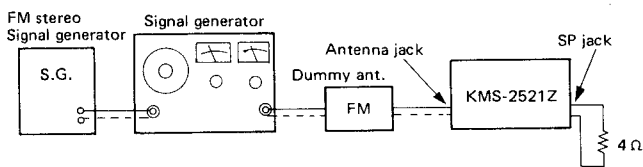
Signal generator		Dial pointer position	Adjust	Reading	Remarks
Frequency	Modulation				
98 MHz	Pilot: 19 kHz 10% L-ch.: 400 Hz 45% 74 dB	98 MHz	RT301	R-ch.: Min.	—

Automatic Sound Control System Adjustment

1. Setting

Symbol No.	Controls	Position
RV401A, B	Tone control	—
RV402A, B	Volume control	—
RV503A, B	Balance control	Center

2. Connection



3. Adjustment

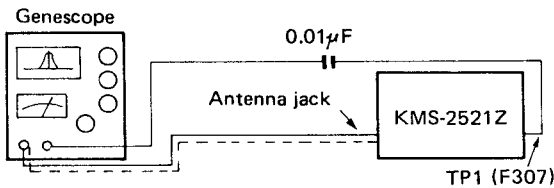
Signal generator		Dial pointer position	Adjust	Reading	Remarks
Frequency	Modulation				
98 MHz	Pilot: 19 kHz 10% (L+R) (L-R): 400 Hz 45% 33 dB + 1 dB	98 MHz	RT051	At the point of the FM stereo indicator turning on.	—

AM IF adjustment

1. Setting

Symbol No.	Controls	Position
RT251	AM sensitivity adjustment	Middle
RV401A, B	Tone control	High
RV402A, B	Volume control	Minimum
RV503A, B	Balance control	Center

2. Connection



3. Adjustment

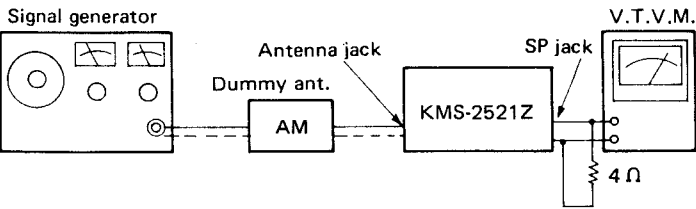
Genescope	Dial pointer position	Adjust	Reading	Remarks
455 kHz	Highest	T152 T251 T252	Max. 	Set the Band switch to the "AM" position.

AM RF (Covering & Tracking) adjustment

1. Setting

Symbol No.	Controls	Position
RT251	AM sensitivity adjustment	Middle
RV401A, B	Tone control	High
RV402A, B	Volume control	Maximum
RV503A, B	Balance control	Center

2. Connection



3. Adjustment

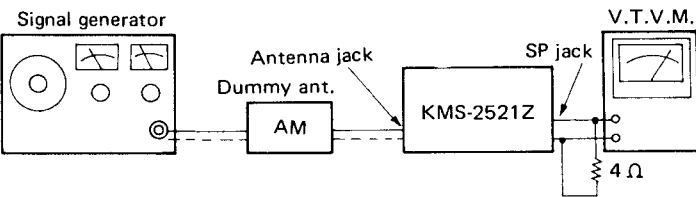
Item		Signal generator		Dial pointer position	Adjust	Reading	Remarks
		Frequency	Modulation				
1	Covering	520 ± 5 kHz	400 Hz 30%	Lowest	T151	Max.	—
2		1650 ± 10 kHz		Highest	CT154		
3	Repeat 1 and 2.						
4	Tracking	1400 kHz	400 Hz 30%	1400 kHz	CT151 CT152(Middle) CT153	Max.	

AM sensitivity adjustment

1. Setting

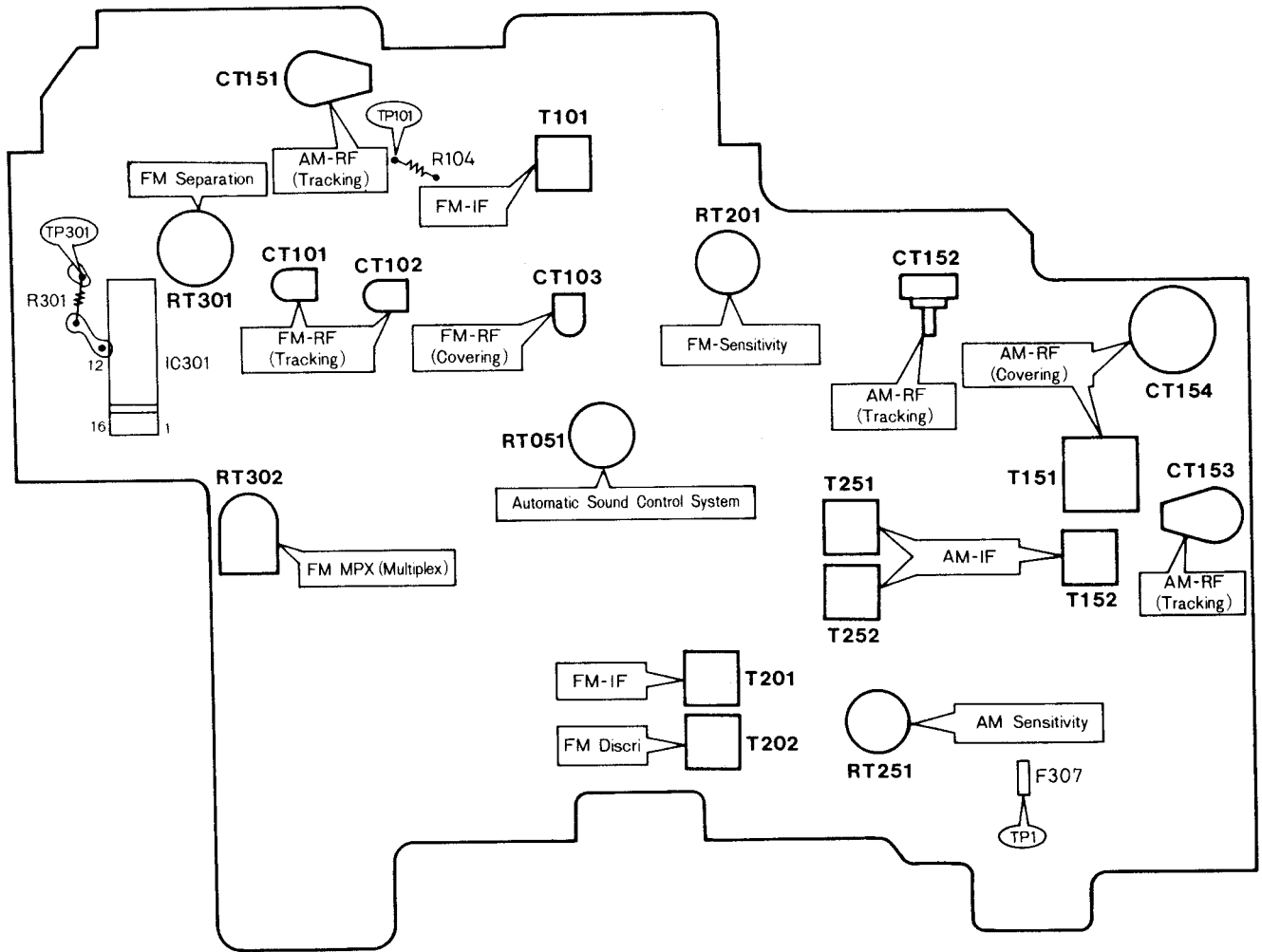
Symbol No.	Controls	Position
RV401A, B	Tone control	High
RV402A, B	Volume control	Maximum
RV503A, B	Balance control	Center

2. Connection



3. Adjustment

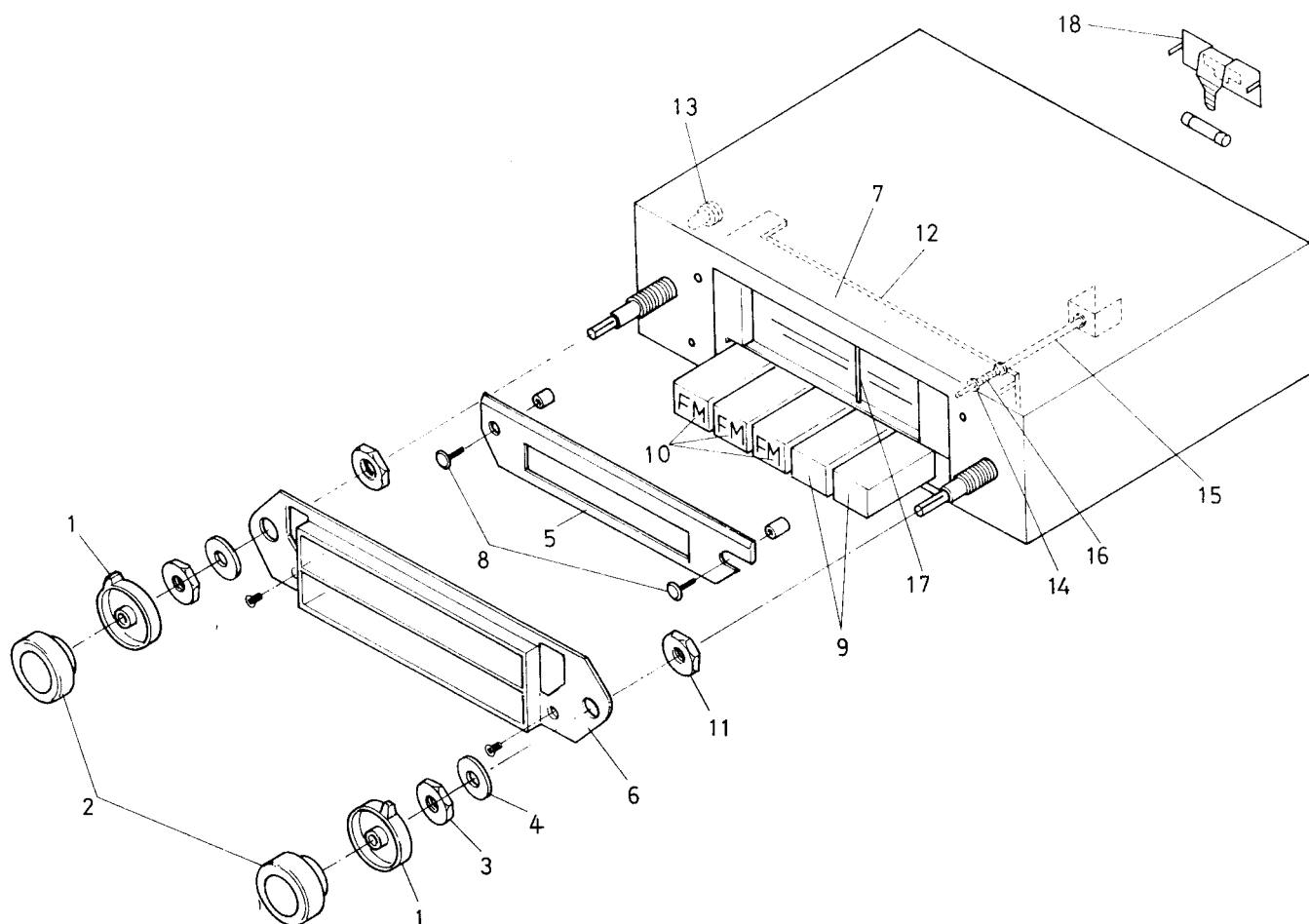
Signal generator		Dial pointer position	Adjust	Reading	Remarks
Frequency	Modulation				
1000 kHz	400 Hz 30%	1000 kHz	RT251	15 dB	—




REPLACEMENT PARTS LISTE

SYMBOL-NO	P-NO	DESCRIPTION	SYMBOL-NO	P-NO	DESCRIPTION
CAPACITORS			Q101	5320943	TRANSISTOR 2SK55-D
CT101-103	5058091	TRIMMER 8PF	Z0201	5330313	DIODE SILICON HZ7C 1.0MHZ 400MW 200MICROS
CT151	5058104	TRIMMER 50PF	Z0202	5330313	DIODE SILICON HZ7C 1.0MHZ 400MW 200MICROS
CT152	5058088	TRIMMER 20PF	TRANSFORMERS		
CT153	5058104	TRIMMER 50PF	T101	5140021	FM IF
CT154	0283104	TRIMMER 50PF	T151	0316099	OSCILLATOR 200MH
C104	0246690	CERAMIC DISC. 10PF+-0.5PF	T152	5130032	AM IF 20KOHM : 1KOHM
C109	0246686	CERAMIC DISC. 8 PF+-0.5PF	T201	5148035	FM DISCRIMINATOR
C115	0248341	CERAMIC DISC. 30PF+-5%	T202	5148034	FM IF
C116	0248320	CERAMIC DISC. 10PF+-5% (N-470)	T251	5130152	AM IF
C117	0248372	CERAMIC DISC. CAPACITOR 12PF +- 10%	T252	5130151	AM IF
C118	0246422	CERAMIC DISC. 2PF+-0.5PF	COILS		
C119	0246424	CERAMIC DISC. 4PF+-0.5PF	L101	5150141	TRAP
C161	0249595	CERAMIC DISC. 220PF+-10%(N-220)	L103	5150811	CHOKE 7.9UH
RESISTORS			L105	5150141	TRAP
RC201	5065021	CR PACK	L151	5150067	CHOKE 7MICROH
RT051	0151882	VARIABLE 470 OHM	L154	5152068	PEAKING
RT201	0151882	VARIABLE 470 OHM	MISCELLANEOUS		
RT251	0151884	VARIABLE 2.2KOHM B	5583504	TUNER	
RT301	0151883	SEMI VARIABLE 1KOHM B	5651142	5P CONNECTOR SOCKET	
RT302	0151808	SEMI VARIABLE 10K OHM RS88	7108273	POWER UNIT	
RV401AB	5003271	VARIABLE 20KOHM(A)	ANT,J	5675011	ANTENNA JACK
RV402AB	5003271	VARIABLE 20KOHM(A)	CF201	5160213	CERAMIC FILTER CF-107
RV503AB	5008371	TUNER VOLUME	CF251	5160081	CERAMIC FILTER 455KHZ
SEMI-CONDUCTORS			F601	0591138	FUSE 2A
D051	5330131	DIODE SILICON 1S2076 100MHZ 250MW 5NS	NL151	0594094	NEON LAMP 100 V
D101	5330661	DIODE SILICON LS2790 200MHZ 80MW	PL301	5762037	LAMP
D201	0575019	DIODE 1N60P	PL601	5762037	LAMP
D202	0575019	DIODE 1N60P	PL602	5762037	LAMP
D601	5330104	DIODE SILICON V06A 15KHZ 1.8W	PL603	5760404	LAMP
D602	5330104	DIODE SILICON V06A 15KHZ 1.8W	FOR ACCESSORIES		
D603	5330101	DIODE SILICON V06C 15KHZ 1.8W	5406332	SPEAKER ASSEMBLY-10CM	
IC051	5356802	IC TA2035	6102481	SPEAKER ASSEMBLY-12 CM	
IC101	5356761	IC TA2031	MISCELLANEOUS		
IC102	5356772	IC TA2032	1	6294931	KNOB (L) FOR TUNING
IC151	5351161	IC HA1199	2	6294881	KNOB ASSEMBLY (L)
IC201	5356782	IC TA2033	3	0643135	NUT - 9MMD
IC202	5356782	IC TA2033	4	0629187	9D WASHER
IC203	5351441	IC AN278	5	6474673	FIN SCALE PLATE
IC251	5356792	IC TA2034	6	6241721	NOSE ESCUTCHEON
IC301	5350683	IC HA11227	7	6474681	SCALE PLATE
IC501AB	5350554	IC HA1366W	8	6714216	NYLON RIVET

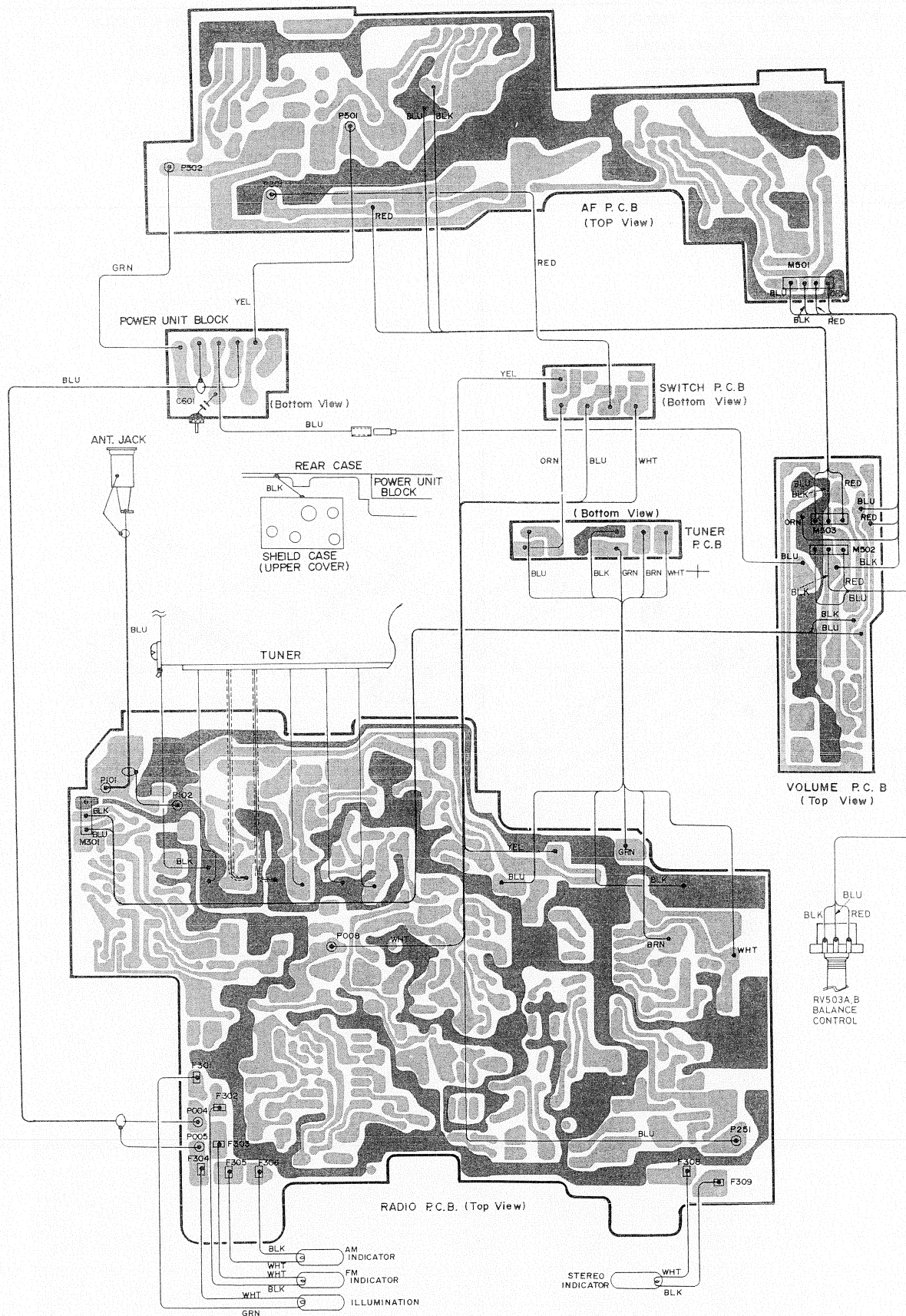
SYMBOL-NO	P-NO	DESCRIPTION	SYMBOL-NO	P-NO	DESCRIPTION
MISCELLANEOUS			14	6748212	TRIMMER JOINT
9	6252381	PUSH BUTTON	15	7543331	TRIMMER SHAFT
10	6252382	PUSH BUTTON	16	6310321	SPRING
11	0643135	NUT-9MMD	17	6399692	POINTER ASSEMBLY
12	6481681	BACK PLATE	18	6172102	FUSE COVER
13	7575773	COLLAR CAP (ORANGE)-FOR PILOT LAMP(L603)			



WIRING DIAGRAM

 : Ground

+B, Signal



CIRCUIT BOARD DIAGRAM

: Ground

+B, Signal

IC202	
1	0V
2	7.5V
3	—
4	2.4V
5	7.8V

IC201	
1	0V
2	7.5V
3	—
4	2.4V
5	7.8V

IC102	
1	0V
2	5.36V
3	7.64V
4	—
5	5.98V

IC101	
1	0V
2	1.78V
3	7.64V
4	7.64V
5	1.78V

Q101	
D	6.5V
G	0V
S	0V

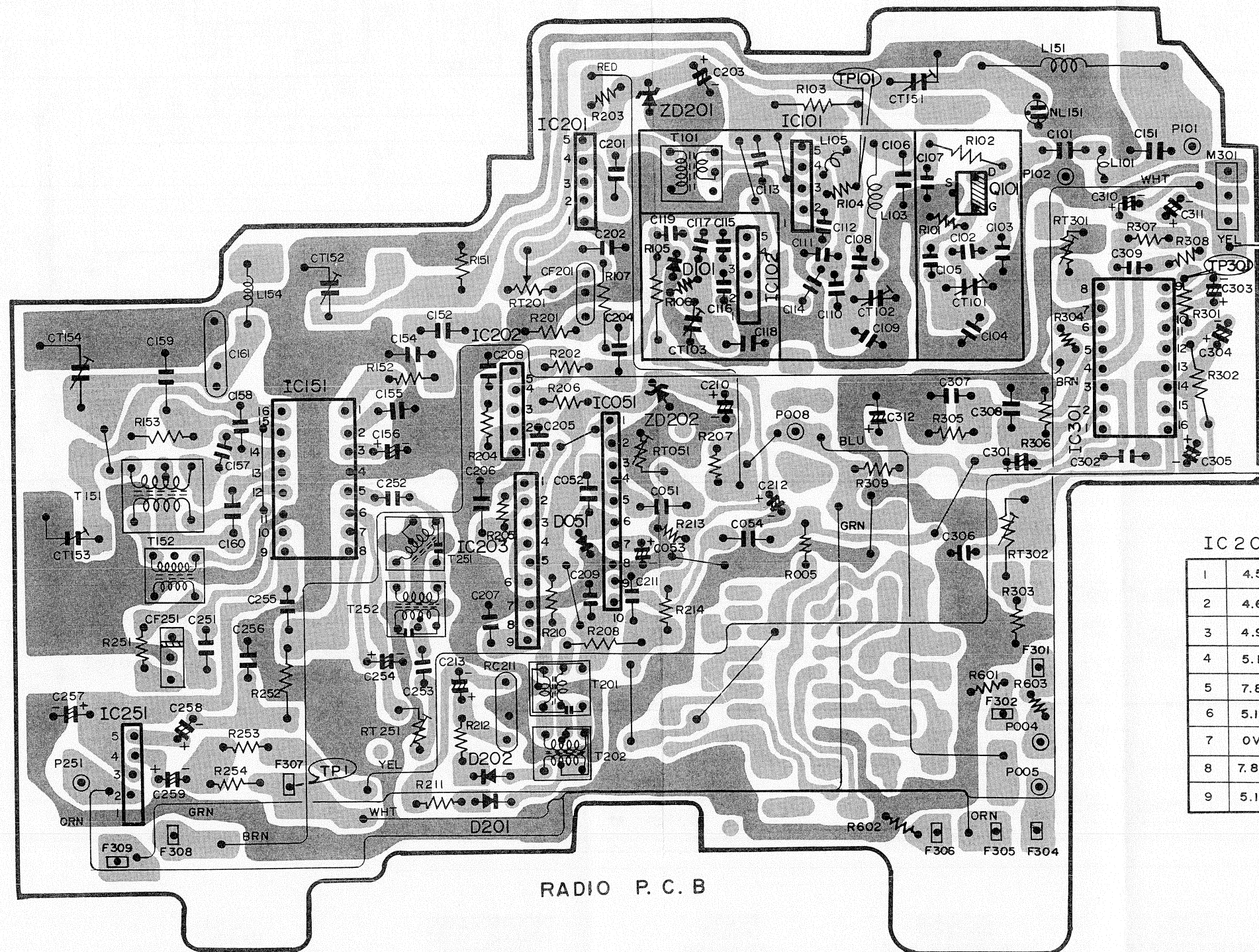
IC151			
1	2.29V	9	11.57V
2	0.97V	10	2.23V
3	0.61V	11	0V
4	0V	12	10.75V
5	8V	13	3.7V
6	0.73V	14	1.4V
7	2V	15	10.73V
8	2.24V	16	10.73V

IC251	
1	0V
2	13.2V
3	11.59V
4	5.63V
5	3.28V

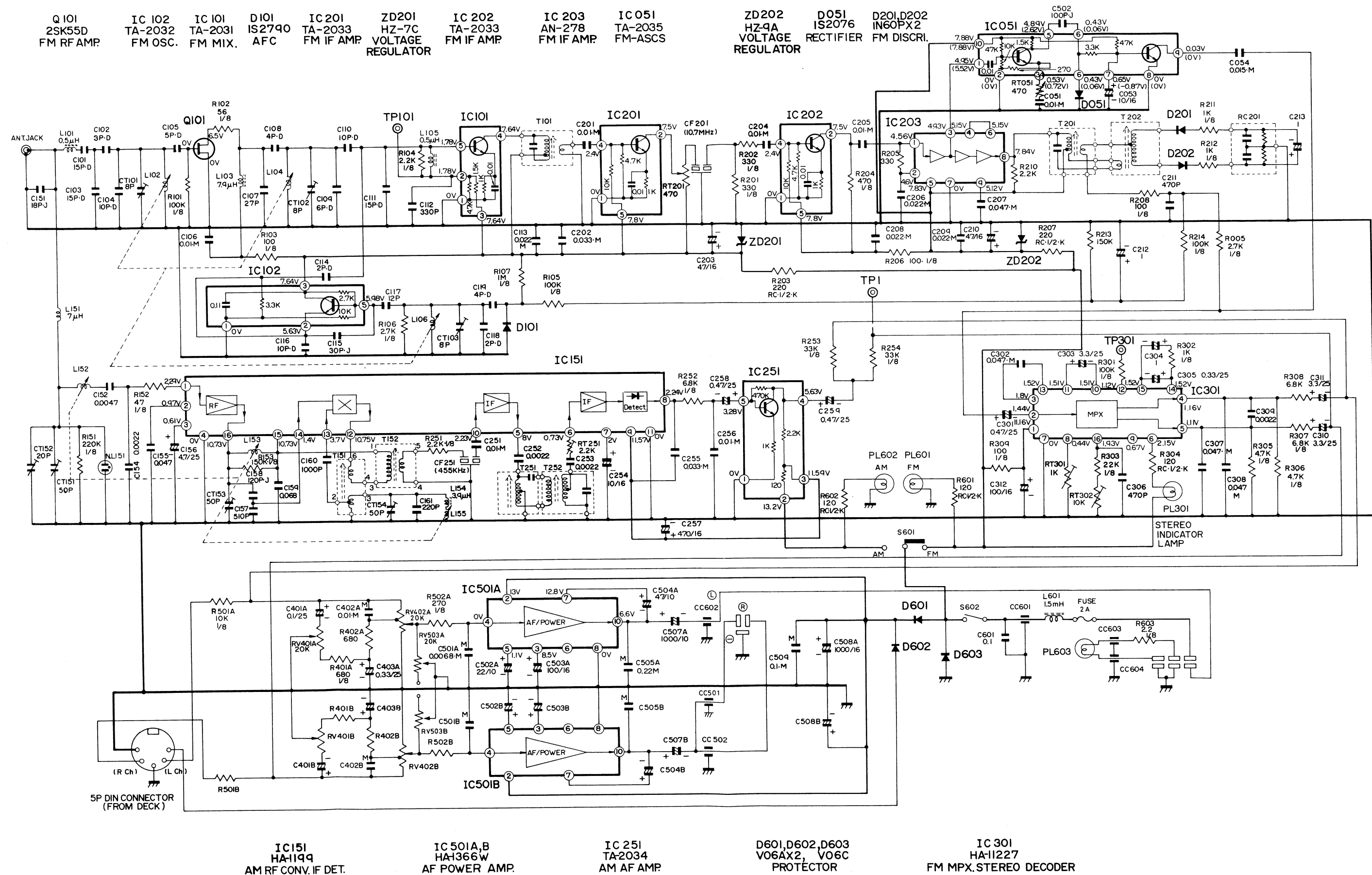
IC301			
1	11.16V	9	0.67V
2	1.44V	10	1.51V
3	1.8V	11	1.51V
4	1.16V	12	1.12V
5	1.11V	13	1.52V
6	2.15V	14	1.52V
7	0V	15	1.52V
8	0.44V	16	1.93V

IC203	
1	4.56V
2	4.6V
3	4.93V
4	5.15V
5	7.83V
6	5.15V
7	0V
8	7.84V
9	5.12V

IC051 ON OFF		
1	4.95V	5.52V
2	0V	0V
3	0.53V	0.72V
4	0.53V	0.72V
5	4.89V	2.62V
6	0.43V	0.06V
7	0.65V	-0.87V
8	0V	0V
9	0.03V	0V
10	7.88V	7.88V



SCHEMATIC DIAGRAM



CIRCUIT BOARD DIAGRAM

Ground : +B, Signal

Note

1. Voltage measured at base of chassis with minimum volume control and no signal.
2. Nomenclature of Resistors and Capacitors.

Circuit No.	
Value	No indicated Ω (Ohm) M : 1000 k Ω
Tolerance	No indicated $\pm 5\%$ K : $\pm 10\%$ M : $\pm 20\%$
Wattage	No indicated $\frac{1}{2}W$
Sort	No indicated Carbon film RC : Composition RW : Wire wound RS : Oxide metal film RN : Fixed metal film

Circuit No.	
Value	No indicated μF P : PF
Tolerance	No indicated $\pm 10\%$ J : $\pm 5\%$ M : $\pm 20\%$ Z : $+80\%$ - 20% D : $\pm 0.5pF$ C : $\pm 0.25pF$
Sort	Ceramic Electrolytic Mylar Polyester Styrol
Voltage	No indicated 50WV

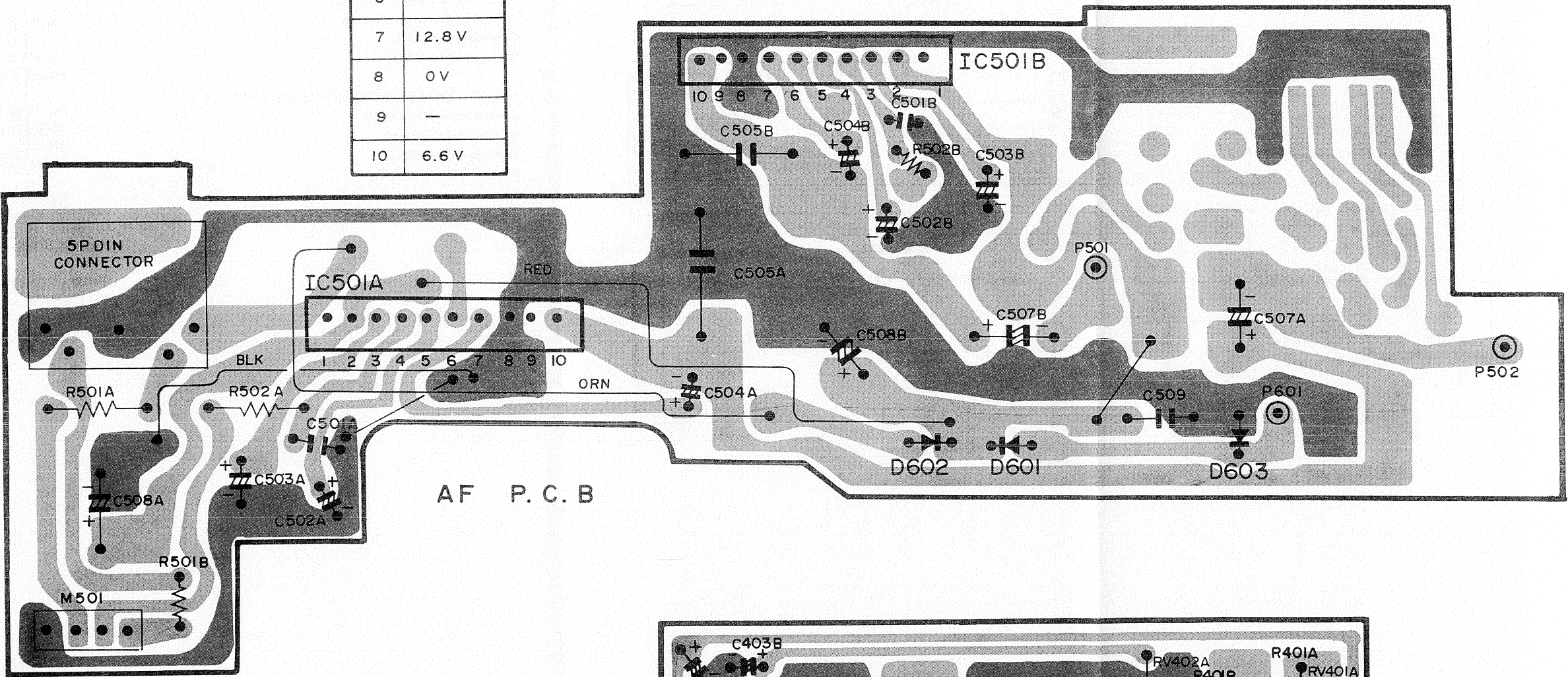
3. Be sure to make your orders of resistors and capacitors with value, voltage, tolerance and sort.
4. When replacing capacitors marked with *, use specified ones stated on parts list since required temperature characteristics.

IC501A

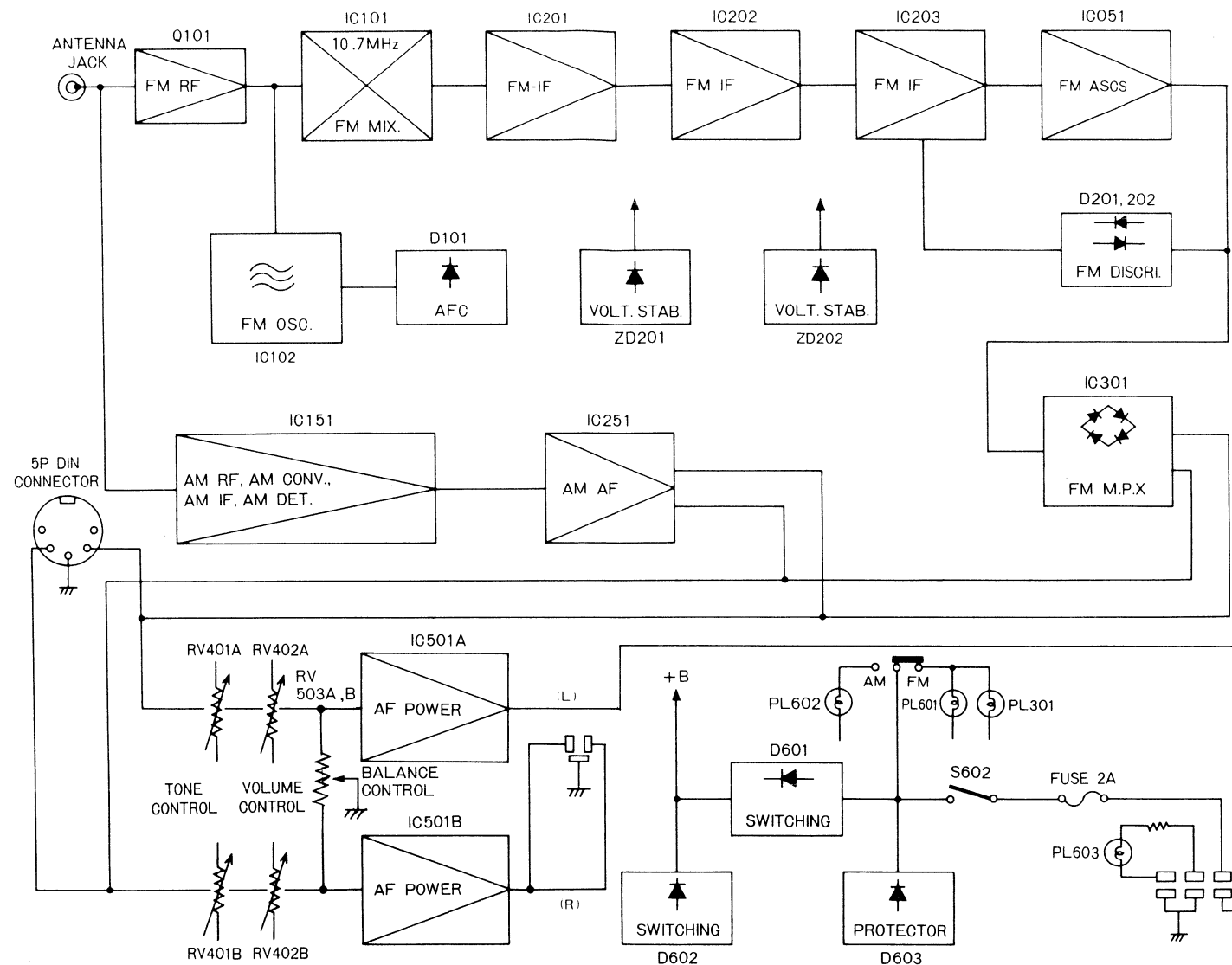
1	—
2	13V
3	8.5V
4	0V
5	1.1V
6	—
7	12.8V
8	0V
9	—
10	6.6V

IC501B

1	—	6	—
2	13V	7	12.8V
3	8.5V	8	0V
4	0V	9	—
5	1.1V	10	6.6V



BLOCK DIAGRAM



HITACHI PARTS ORDERING INFORMATION

To receive original replacement parts, please contact your nearest HITACHI Parts Distributor or contact Hitachi Central Parts Warehouse listed below. Be sure to indicate part catalog number, part description and model number (located on back of product).

PANSON ELECTRONICS
28-14 Steinway St.
Astoria, NY 11103
Phone #212-545-8888

TEL-VIDEO CORPORATION
1921 N. Milwaukee Avenue
Chicago, IL 60647
Phone #312-235-6190

HITACHI SALES CORPORATION OF AMERICA
Central Parts Warehouse
401 W. Artesia Blvd.
Compton, CA 90220
Phone #213-537-8383

HITACHI SERVICE MANUALS

To order HITACHI Service Manuals contact:

HITACHI SALES CORPORATION OF AMERICA
Central Parts Warehouse
401 W. Artesia Blvd.
Compton, CA 90220
Phone #213-537-8383

For information concerning repairs, operation or technical assistance, please contact the Service Manager of the nearest Hitachi Regional Office, Service Division listed:

Southern Regional Office
510 Plaza Dr.
College Park, GA 30349
Phone #404-763-0360

Mid-Western Regional Office
1600 Morse Avenue
Elk Grove Village, IL 60007
Phone #312-593-1550

Eastern Regional Office
1200 Wall Street West
Lyndhurst, NJ 07071
Phone #201-935-8980

Western Regional Office
401 W. Artesia Blvd.
Compton, CA 90220
Phone #213-537-8383



HITACHI SALES CORPORATION OF AMERICA
Eastern Regional Office
1200 Wall Street West, Lyndhurst, New Jersey 07071
Tel. 201-935-8980
Mid-Western Regional Office
1400 Morse Ave., Elk Grove Village, Ill. 60007
Tel. 312-593-1550
Southern Regional Office
510 Plaza Drive College Park, Georgia 30349
Tel. 404-763-0360
Western Regional Office
401 West Artesia Boulevard, Compton, California 90220
Tel. 213-537-8383
HITACHI SALES CORPORATION OF HAWAII, INC
743-G Waiakamilo Rd., Honolulu, Hawaii 96817
Tel. 808-841-0431